Single Sales Factor Apportionment
Author: Barb Dickerson
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1. What it is

Companies doing business in more than one state must determine how much income is subject to tax in each state in which they do business based upon separate accounting, specific allocation or apportionment. It is the latter concept that this paper deals with.

The current use of multistate apportionment formulae is derived from concepts of valuation methods for property tax purposes and income taxation of such businesses as railroads and telegraph companies dating back to the nineteenth century. The use of a single factor of line mileage was common for these types of companies and was upheld by the U.S. Supreme Court in several cases, although not in all matters raised to that level of appeal.

The use of a single factor gross receipts formula to apportion capital stock for Texas franchise tax purposes was initially upheld by the U.S. Supreme Court in *Ford Motor Company v. Beauchamp*, 308 US 331, 60 S. Ct. 273 (1939). In a seminal decision, the Court upheld Iowa's use of the single sales factor to apportion the multistate income of a manufacturer for corporate income tax purposes in *Moorman Manufacturing v. Bair*, 437 US 267, 98 S. Ct. 2340 (1978). Of note in that decision was the Court's commentary that the Commerce Clause of the U.S. Constitution does not require such absolute precision in an apportionment formula so as to prevent duplicative taxation among the states and its recognition that, so long as states used different apportionment formulae, that risk existed, although that risk was not caused solely by the formula used.[1]

The single sales factor is, therefore, one valid method of apportionment of income among the states. Other methods typically involve the three factors of property, payroll and sales, either equally weighted or with some additional weight on the sale factor. See section 5(B) for other alternative apportionment methods. In addition, most states give their administering agencies the authority to determine the appropriate formula necessary to eliminate distortion of income taxable to the state. The Arizona Legislature has granted such authority to the Arizona Department of Revenue ("ADOR") under the provisions of Arizona Revised Statutes ("A.R.S.") § 43-1148.

For purposes of the discussion which follows, it is important to keep in mind that apportionment is a concept that applies only to companies doing business within and without Arizona. It does not apply to companies that only do business within this state.

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[1] "State Taxation: Constitutional Limitations and Corporate Income and Franchise Taxes", Third Edition, Jerome R. Hellerstein and Walter Hellerstein, Copyright 2001.

2. How it would be administered

The current requirement to use an apportionment formula of property, payroll and two times sales for apportioning income to Arizona is found in A.R.S. § 43-1139. That statutory provision is located within Chapter 11, Article 4, Title 43, entitled "Uniform Division of Income for Tax Purposes Act" ("UDITPA"). Although Chapter 11 pertains to corporations, the word "Taxpayer" is defined in the opening section of UDITPA, A.R.S.§ 43-1131, as encompassing any person subject to tax under Title 43. "Person" is defined in A.R.S. § 43-104(18) as individuals, fiduciaries, partnerships and corporations. A.R.S. § 43-1132(A) requires any taxpayer having income from business activity which is taxable both within and without Arizona to apportion and allocate income according to the UDITPA provisions.

As a result of this statutory language, if the statutory language implementing a single sales factor is placed in A.R.S. § 43-1139 or another UDITPA provision, it would apply not only to corporate income tax filings, but those of individuals[2] and flow-through entities as well. All such filings are administered by ADOR, and the implementation of single sales factor would be handled in the same manner as the current apportionment ratio.

3. Impact on existing revenue streams

Income tax revenues flow into the state's general fund and are revenue shared with the cities and towns pursuant to A.R.S. § 43-206.

At this time, the only current impact analysis that has been done is that which was done by ADOR in April 2003 to address a then current legislative proposal to phase in the single sales factor over a five year period. That proposal included an annual election to be made by taxpayers to use a single sales factor formula or retain the current, double-weighted sales, factor. Based on 2001corporate returns before all returns for that tax year were filed, the analysis showed an annual revenue loss of $12 – 81.6 million over the five year phase-in period. The analysis was made of the corporate returns with the highest liability which had been filed at the time of the analysis. It is based on a partial year of data at what ADOR characterizes as probably the lowest point for corporate income tax collections in ten years.

The impact of a five-year phase-in of single sales factor without an election to utilize the current apportionment formula is about $2.5 million per year according to ADOR.

This analysis was a static model of general fund revenue losses and did not take into consideration other impacts on general fund revenues from expanded economic activity arising as the result of adoption of the proposal. See section 6 for a further discussion of

[2] Other statutory and regulatory provisions supersede a pure application of UDITPA to individuals in Arizona; however, income of flow-through entities distributed to individuals would be calculated under UDITPA.

this issue. The analysis also did not address impacts to flow through entities and, therefore, individuals as well as corporations.

4. Cost

Since the single sales factor would be an alternative apportionment formula, the cost to administer the program would not be significant per ADOR.

5. Policy Considerations:

A. Equity

Since single sales factor is a method of determining taxable income upon which tax is calculated and not a tax itself, one cannot discuss equity in the same manner as a tax.

If adopted for all segments of business taxpayers or even selected classes, the issue with single sales factor is the impact that action has on the companies that have payroll and capital investment (property) in the state vs. those that do not (i.e., the winners and losers). With the traditional adoption of a single sales factor, and as adopted in most of the other states that have single sales factor, those companies with extensive payroll and property in a state will see a reduction in their in-state liability, while many companies making sales into the state without having significant property and payroll will see an increase in liability. The proposal in Arizona in recent years, however, has been to allow an annual election by companies as to the use of a single sales factor formula or the use of the current double-weighted sales formula. In making a choice to allow an election, Arizona would attempt to avoid an increase of liability on those taxpayers that pay tax to the state but do not have as extensive a physical presence here while, at the same time, creating a retention and/or expansion incentive for both in and out-of-state taxpayers.

A key issue with single sales factor revolves around job creation. In 1998, Austan Goolsbee and Edward Maydew of the University of Chicago studied the impact of the corporate apportionment formula on employment in a state.[3] Based on prior analysis of the traditional three factor apportionment formula of property, payroll and sales which found that the formula transformed the corporate income tax into three direct, implicit taxes on the factors,[4] Goolsbee and Maydew modeled the impact of the reduction of the implicit tax on payroll through the adoption of a payroll factor that was only one-quarter of the formula (in a double-weighted sales factor scenario) rather than the traditional one-third, on manufacturing businesses. Their approach

[3] "Coveting Thy Neighbor's Manufacturing: The Dilemma of State Income Apportionment", Austan Goolsbee and Edward L. Maydew, University of Chicago, May 21, 1998 (revised February, 1999)
[4] McLure, C. (1980), "The State Corporate Income Tax: Lambs in Wolves' Clothing" from *The Economics of Taxation*„ H. Aaron and M. Boskin, eds. (Brookings; Washington, D.C.)

recognized that the results were conditional on the state of the economy and other variables. They found that the change increased manufacturing employment by approximately 1.1%, and that increased employment generated an indirect source of additional income tax revenue. Studies by Goolsbee and Maydew in states considering single sales factor show even stronger employment gains. See section 6 below.

From an equity perspective, however, their other conclusion is very relevant. They found that the amount of employment in the aggregate is finite; therefore, employment increases in states that reduce the weight of the payroll factor cause employment decreases in other states as companies make choices concerning where to expand their presence. They found the only way to resolve what they termed "negative externality" was for the U.S. to adopt a nationally uniform apportionment formula. Given that that is unlikely, states would be in competition with each other; therefore, negative externality creates pressure for states to act first in changing their apportionment formulae. As more states take such actions, the benefits of doing so are reduced. A state which makes such a change early acts from both an offensive and defensive position.

B. Economic Vitality

Of the states that impose income/franchise or comparable tax, twenty use an equally weighted three factor formula, seventeen (including Arizona) double weight the sales factor, five super weight the sales factor (Michigan 90%, Minnesota 75%, Ohio 60%, Oregon 80% and Pennsylvania 80%) and four are full single factor (Illinois, Iowa, Nebraska and Texas). On July 24, 2003, the governor of Wisconsin signed into law legislation that implements a phase-in of single sales factor beginning on January 1, 2006. Missouri uses either an equally weighted three factor formula or a single sales factor formula on an annual elective basis.

Within these groupings are numerous variances: Massachusetts requires single sales factor apportionment for defense contractors, manufacturers and mutual funds. Kansas requires single factor apportionment of transportation and telecommunications companies and two factor apportionment if the payroll factor is 200% of the average of the property and payroll factors combined. Florida requires single factor for transportation companies and insurance companies. Colorado allows an optional two factor formula of sales and property. Connecticut requires financial institutions to use a single factor formula, and Wisconsin currently requires that industry to use a two factor formula. Numerous states have adopted special industry regulations that contain apportionment rules that deviate from the norm, such as for financial institutions, transportation companies, airlines and contractors.

Goolsbee and Maydew concluded that the early adopters of apportionment formulae that alleviated the implicit tax on payroll would have the advantage. A similar conclusion was reached by William G. Hamm and Avinash K. Verma in their study of the impact of adoption of single sales factor for California.[5] In their study, Hamm and Verma state that a fundamental principle of economics holds that, as a commodity becomes cheaper than substitutes, buyers will increase purchases of the commodity and reduce purchases of the substitutes. For purposes of their study, the commodity was investment in California and the substitutes were investments in other states.

Hamm and Verma determined that, since the states do not use uniform apportionment formulae, the early adopters of a beneficial formula such as single sales factor, would retain many of the benefits initially derived and would continue to derive benefit relative to states using formula that applied an implicit tax on property and payroll. On the other hand, failure to act would actually cause a loss in annual general fund revenue for California. As more states adopted single sales factor, they concluded that no state would be favored by their apportionment formula in securing new investment.

In their analysis, Goolsbee and Maydew found manufacturers to be most susceptible to tax burden based on changes in the apportionment formula. The analysis performed by Hamm and Verma appears to validate that conclusion, since the manufacturing segment of the business population reviewed in that study recorded the highest tax impact swings in six of the seven categories analyzed.

C. Volatility

The corporate income tax is very volatile. As the April 15, 2003 ADOR analysis states: "Again, it is very important to note that it is impossible to predict future corporate income taxes and the actual impact a single sales factor may have compared to the existing allocation formula."

Goolsbee and Maydew reiterate that concept in the Wisconsin study on single sales factor when they state: "This study also predicts that a single factor sales formula will raise an additional $51 million in individual income tax revenues per year. All revenue estimates should be approached with a degree of caution, however. It is simply not possible to know with certainty how much revenue will be raised or lost by adopting a single sales factor." (Note that the revenue increase in this study was a gain in individual income tax revenue arising from job creation.)

[5] "Apportioning Corporate Income: If California Adopts The Single-Factor (Sales) Apportionment Formula, What Will Be The Economic and Revenue Impact?", William G. Hamm, Ph.D. and Avinash K. Verma, Ph.D., LECG, LLC, November 16, 2001.

It is unlikely that any apportionment formula change will make the corporate income tax less volatile.

D. Simplicity

The adoption of single sales factor or an elective single sales factor could reduce the amount of time that a multistate/multinational company spends in pulling together property and payroll data in order to file returns; however, if Arizona adopts an annual election, it is likely that the company would compile the data to make the comparison.

Corporate income tax in general is very complex, and going to a single sales factor will not materially reduce that complexity. Of the three factors, the sales factor tends to have the most technical issues because of the income sourcing rules states have adopted. For example, a company often must first decide if a revenue stream is business or nonbusiness. If it is the latter, many states will source it to the company's state of commercial domicile, and it does not get included in the sales factor. Intercompany sales are usually eliminated from the sales factor if combined or consolidated returns are filed. Business income subject to apportionment then must be appropriately sourced based on the nature of that income and each state's rules for determining whether it belongs in the numerator, denominator, both or neither. Those rules, particularly the sourcing rules relative to sales other than sales of tangible personal property, such as services or intangibles, can have a significant impact on the sales factor. Throwback of sales of tangible personal property, which is being addressed in a separate paper, can similarly impact the sales factor.

As Goolsbee and Maydew concluded, the only resolution to the complexities of corporate apportionment is a nationally uniform formula.

6. Economic Impact

As mentioned above, a static model of the revenue impact of an elective single sales factor was done by ADOR in April 2003; however, there has not been a current analysis using a dynamic model to evaluate the total economic effects of a change to either a mandatory or an elective single sales factor rather than just the impact on the general fund.

In January 2000, Debra Roubik published a study of the economic impact of a single sales factor on Arizona using a dynamic model.[6] Although Ms. Roubik states that, to account for the factor election provision, total business tax collections are reduced by the amount calculated in studies by the Arizona Department of Revenue, it is unclear what the age of the data is. The conclusion of this study in 2000, however, was that

[6] "Encouraging High-Pay Job Creation: The Case for a Single Sales Factor Apportionment Formula for the State of Arizona", Debra Roubik, Chief Economist, VisionEcon, January, 2000.

the implementation of single sales factor apportionment would create an additional 337,000 jobs in Arizona by 2015, of which 249,000 would come from high-paying manufacturing jobs. She also concluded that the average annual wage for Arizona workers would increase by as much as $3,500 in the same timeframe, and that general fund revenues would increase by as much as $1.2 billion.

The study bases its conclusion on an extrapolation to corporate income, transaction privilege and income tax revenues of a historical trend that every percentage point increase in Arizona employment growth has inferred a 1.4 percent point increase in corporate revenue growth.

The 2001 California study by Hamm and Verma cites a study done in 2000 at Arizona State University[7] using regression analysis to look at the impact of the property factor in the apportionment formula. The conclusion of the study as explained by Hamm and Verma is that the property burden has a significant negative association with a corporation's capital expenditures and that a percentage reduction in property burden will increase capital expenditures between .05 and .35 percent. If the property factor is eliminated, based on this analysis, theoretically capital expenditures in the state could increase by 1.25 percent to 8.75 percent.

Although not directly relevant, a summary of the findings for other states may be helpful.

The Goolsbee and Maydew study done for Illinois prior to its adoption of single sales factor indicated a 4.8 percent to 5.6 percent increase in employment. For Wisconsin, they concluded that such adoption would increase manufacturing jobs by 2.9 percent and non-manufacturing jobs by 2.4%. Per the Hamm and Verma study, the Goolsbee/Maydew model indicated a 3.5 percent employment increase for New York.

The Hamm and Verma study found that, by repealing the implicit tax on payroll and capital investment, the adoption of a single sales factor would increase the incentive to invest and the ability to create new jobs. While reiterating that tax is not the primary incentive for business location decisions (market factors, such as price and availability of skilled labor, proximity of suppliers, access to reliable transportation, the price and availability of energy will generally determine where investments are made), the study concludes that tax considerations become important if market considerations don't predetermine a location.

Hamm and Verma determined that the overall impact for California could be a general fund increase of $134 million over the twelve months following adoption of single sales factor for the manufacturing segment and $620 million for all segments. They also determined that the general fund revenue could drop by $15-58 million within one year if California failed to act and at least five other states did act.

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[7] "The Effect of State Income Tax Apportionment and Tax Incentives on New Capital Expenditures", Gupta and Hoffman, Arizona State University, 2000.

7. Other

As Arizona develops a focus on biotechnology and research and development, the sales factor sourcing rules should be reviewed for compatibility with any single sales factor effort that is undertaken.

Since Missouri has a similar apportionment structure as that which is being considered for Arizona, it may be beneficial to review that state's experience with revenue impacts and shifts from taxpayers making annual elections.

Finally, it would be beneficial to review the experiences of the other single sales factor states that have had more recent adoption than Texas and Iowa. In Massachusetts, which uses single factor apportionment for defense contractors, manufacturers and mutual funds, a study performed by Ernst & Young[8] found the following:

- Nearly 6,200 jobs would be lost by reverting to a double-weighted three factor formula.
- Massachusetts gains over $7.00 of additional net income for each dollar of reduced state corporate excise tax revenues.
- If a double-weighted three factor formula was adopted, $52.5 million in increase excise tax on manufacturers would be offset by tax losses of $29.1 million and additional spending on unemployment and welfare
- State and local governments gain $41.3 million of additional tax revenue directly from the manufacturing activity attributable to the sales factor only apportionment formula.

[8] "The Economic and Fiscal Effects of Single Sales Factor Apportionment for Massachusetts Manufacturers", Ernst & Young LLP, 2003.